



# National Influenza Vaccination Disparities Partnership

## Webinar

### Talking to Patients about Flu: Sharing Facts and Addressing Misconceptions and Hesitancy

January 10, 2018

National Influenza Vaccination Disparities Partnership  
WEBINAR



# Questions & Answers

Type your question into the Q&A box

Please submit your evaluation at the end of the webinar



National Influenza Vaccination Disparities Partnership  
WEBINAR



## Presenter



**Dr. Mark Sawyer**

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University of California San Diego (UCSD) School of Medicine, Rady Children's Hospital  
Medical Director, UCSD Immunization Partnership  
Member, American Academy of Pediatrics Committee on Infectious Disease

National Influenza Vaccination Disparities Partnership  
WEBINAR



# Objectives

- Identify available flu products for the 2017-18 flu season
- Review and address common misconceptions about flu viruses and vaccine effectiveness
- Review current flu recommendation from the Advisory Committee on Immunization Practices (ACIP)
- Suggest strategies to address flu vaccine hesitancy





# INFLUENZA VACCINE 2017-2018

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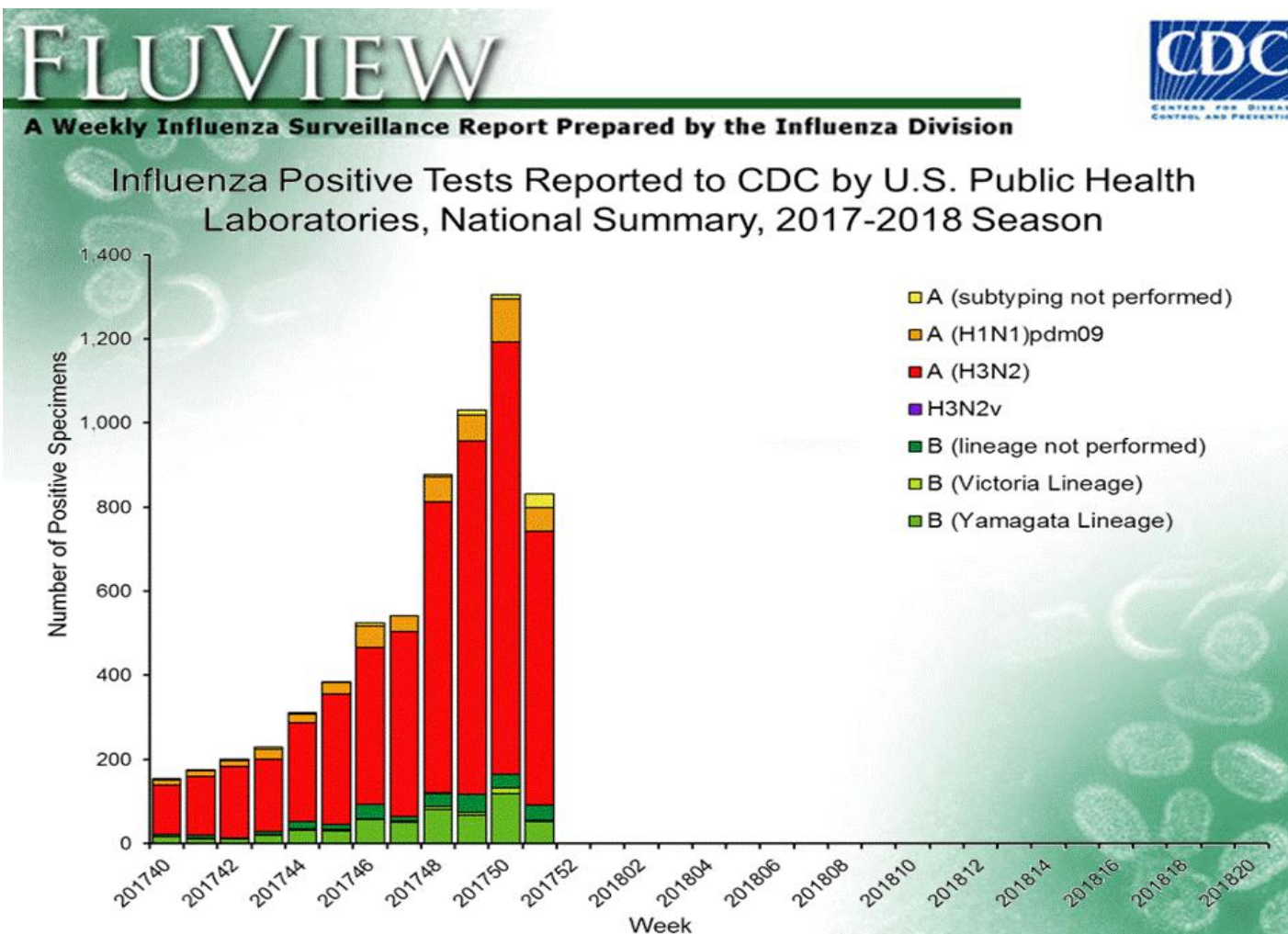
*Mark H. Sawyer MD*

*UCSD School of Medicine/Rady Children's Hospital  
San Diego*

*San Diego Immunization Partnership*



# WEEKLY INFLUENZA SURVEILLANCE – POSITIVE TESTS



FluView: A weekly influenza surveillance report prepared by the Influenza Division under CDC.

Retrieved 1/3/18 from <https://www.cdc.gov/flu/weekly/>

# WEEKLY INFLUENZA SURVEILLANCE – VISITS FOR ILI

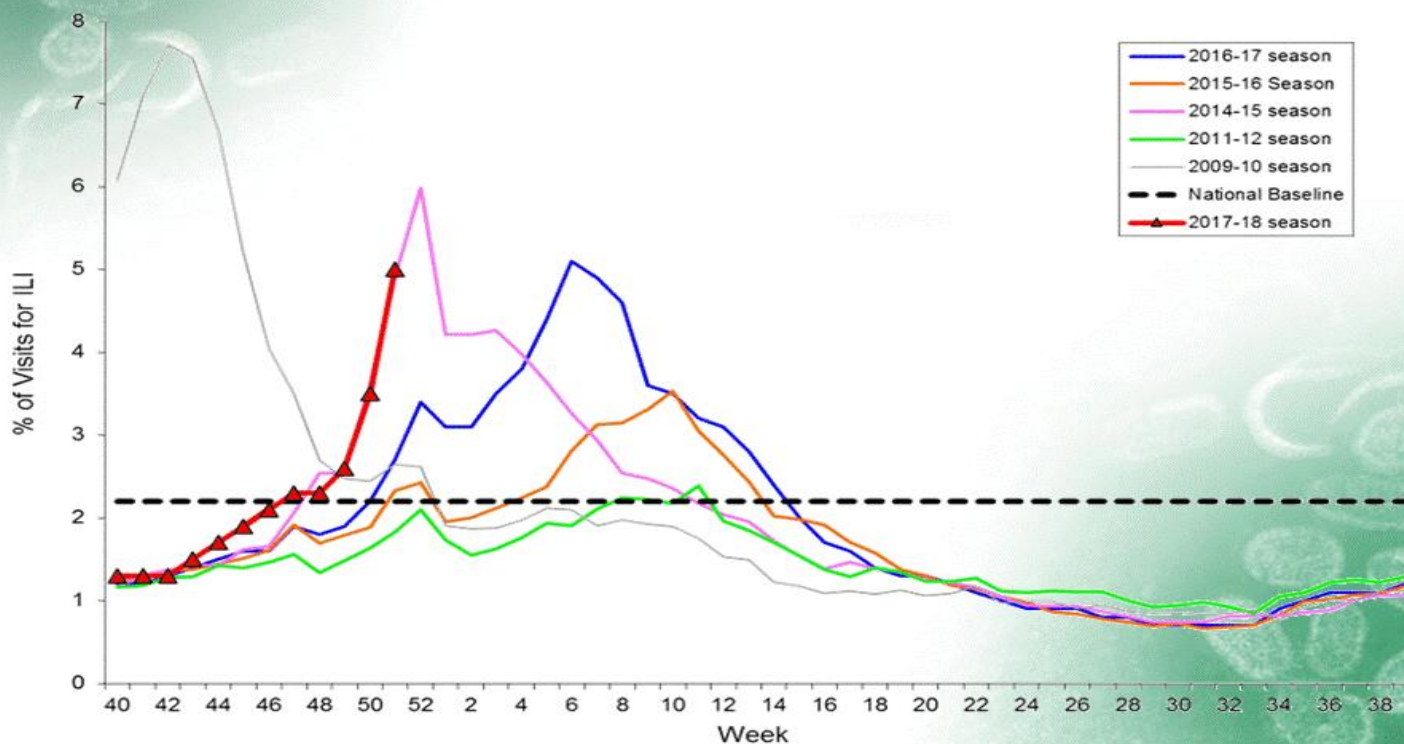


LIVE WELL  
SAN DIEGO

## FLUVIEW

A Weekly Influenza Surveillance Report Prepared by the Influenza Division

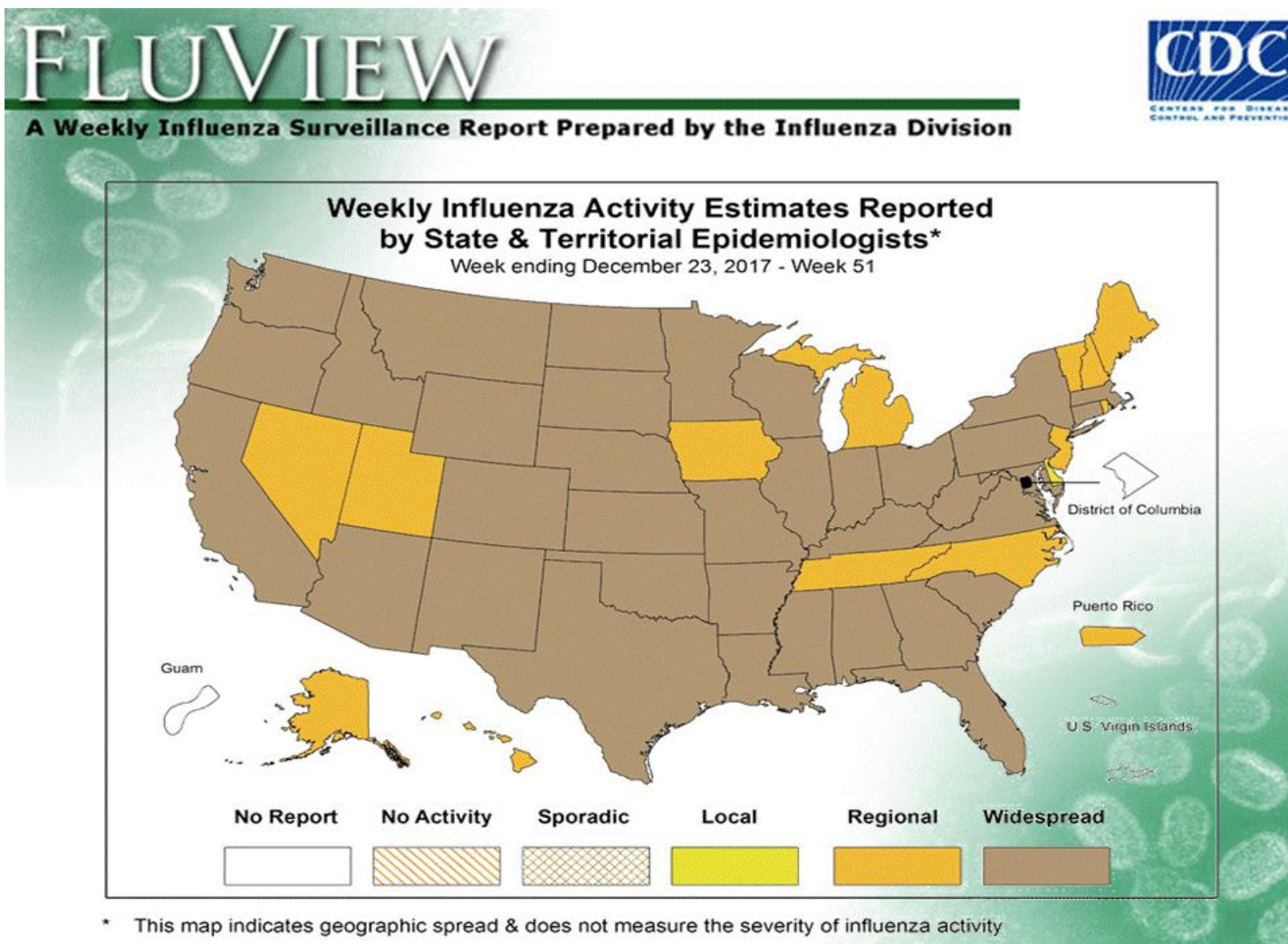
Percentage of Visits for Influenza-like Illness (ILI) Reported by  
the U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet),  
Weekly National Summary, 2017-2018 and Selected Previous Seasons



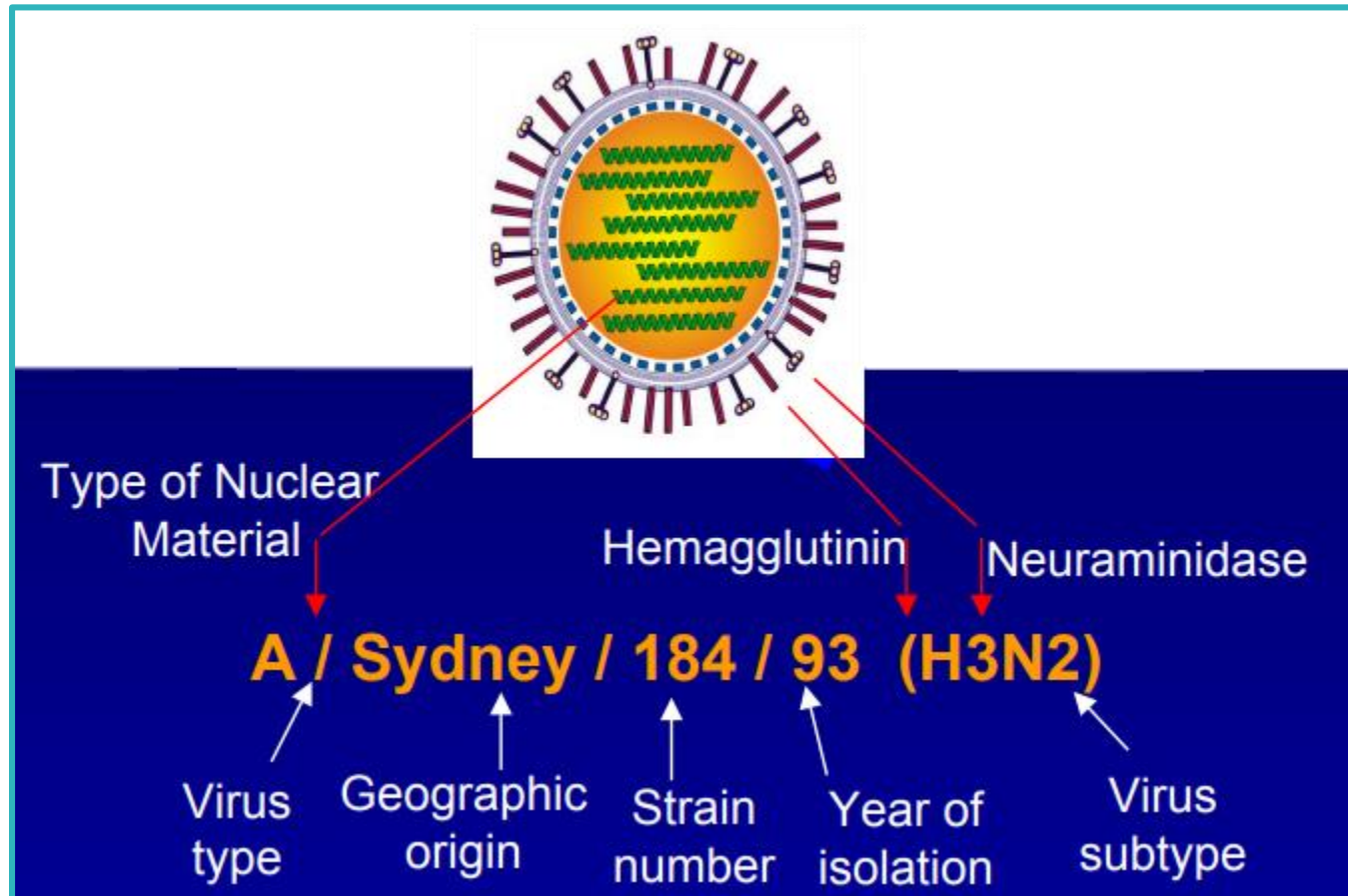
FluView: A weekly influenza surveillance report prepared by the Influenza Division under CDC.

Retrieved 1/3/18 from <https://www.cdc.gov/flu/weekly/>

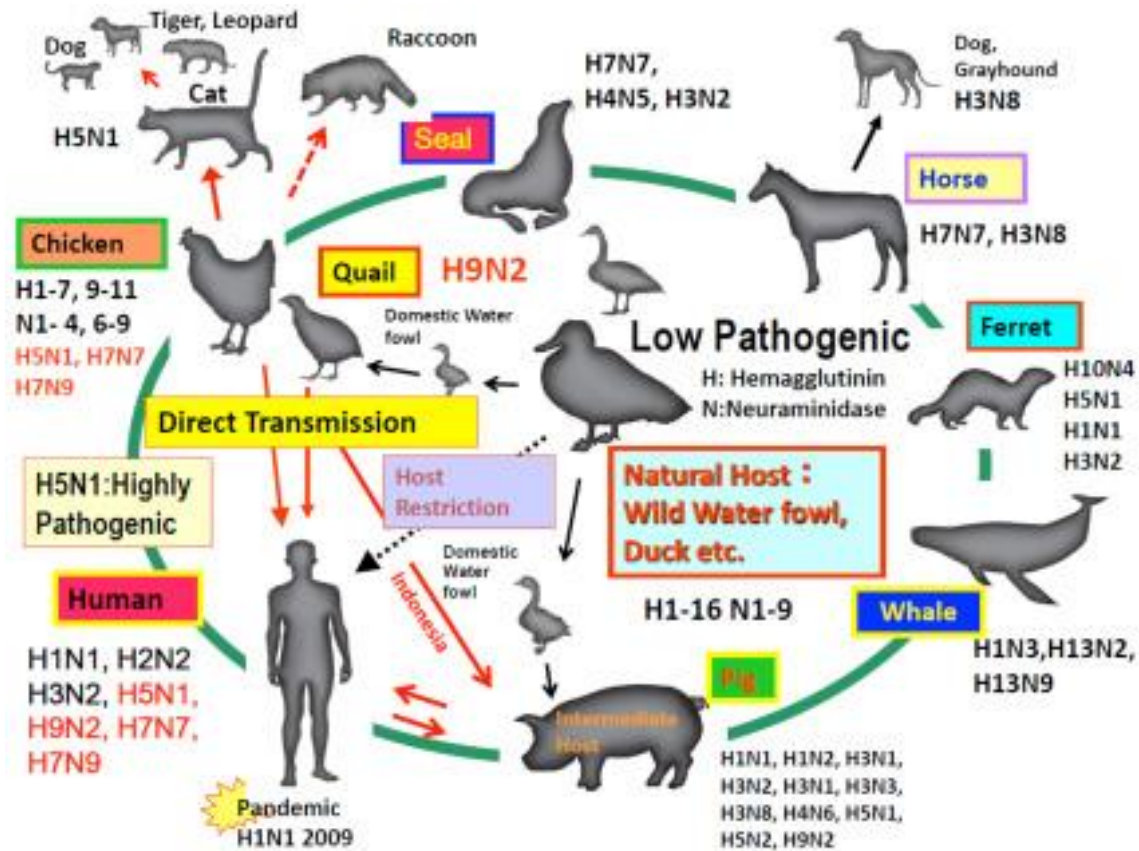
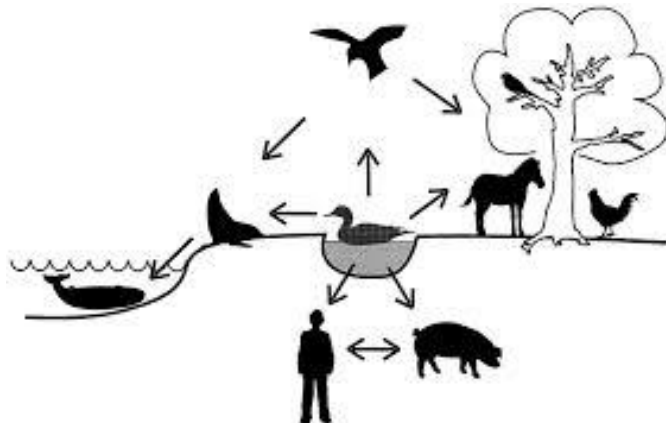
# WEEKLY INFLUENZA SURVEILLANCE – ACTIVITY BY STATE & TERRITORY



# INFLUENZA VIRUS NOMENCLATURE



# INFLUENZA ON EARTH



Suzuki, Y. (2013, Nov. 14). Recent research on influenza virus receptor and the mechanism of its host range mutation. Retrieved from <http://www.glycoforum.gr.jp/science/glycomicrobiology/GM10/GM10E.html>

# HOW WE PICK INFLUENZA VACCINE STRAINS



LIVE WELL  
SAN DIEGO

- Worldwide surveillance
- Sophisticated laboratory analysis
  - Serologic comparisons
  - Nucleic acid sequencing
- WHO expert panel
- FDA VRBPAC-Vaccines and Related Biological Products Advisory Committee

# SEASONAL INFLUENZA VACCINE PRODUCTION TIMETABLE

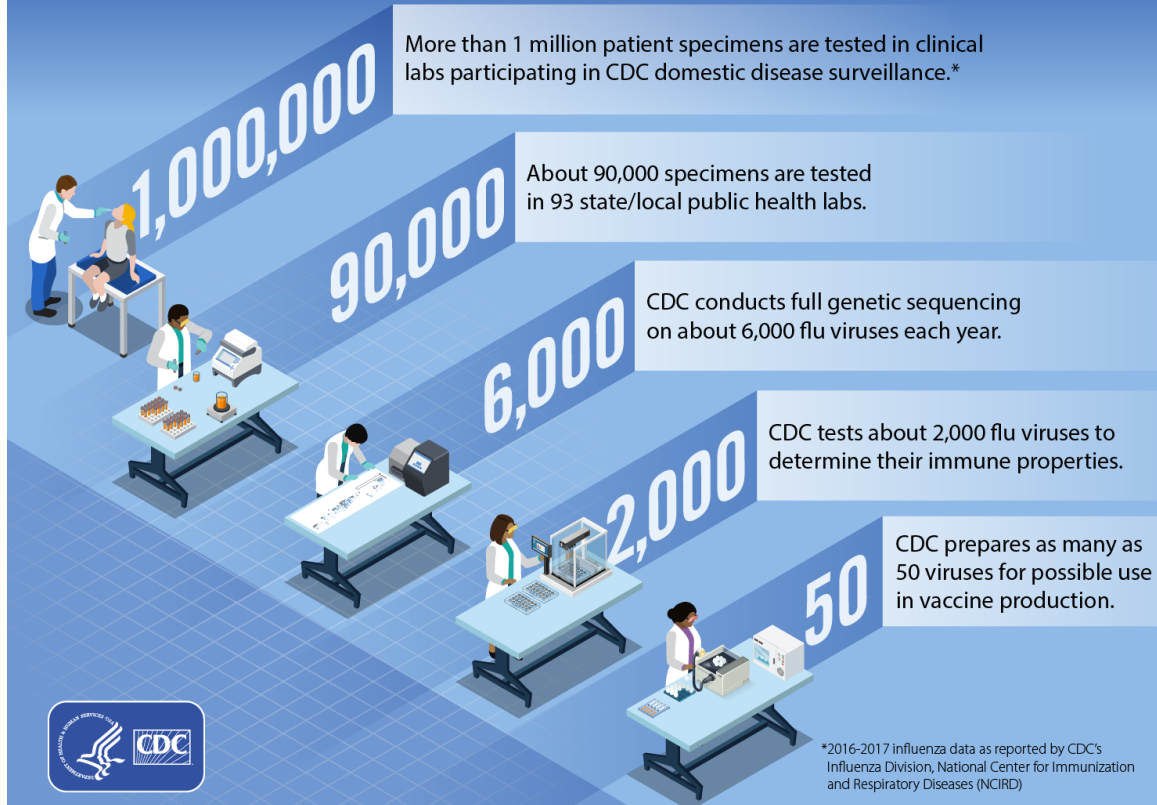


This slide, from the U.S. Food and Drug Administration, illustrates the production timeframe of seasonal influenza vaccine starting from surveillance to the administration of vaccine to the general public

Steps	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Surveillance												
Select Strains												
Reference Virus												
Reagents												
Production												
Release												
Distribution												
Administer												



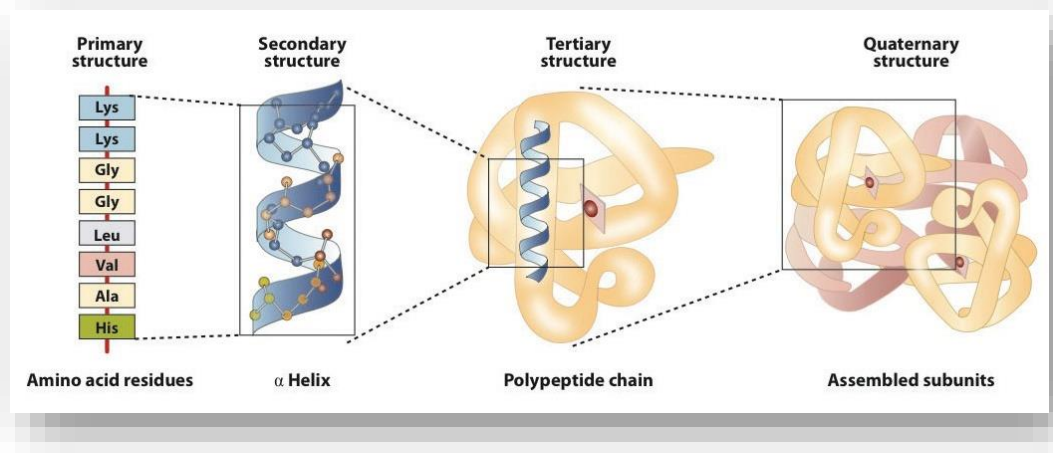
## CDC Yearly Lab Work on Flu Viruses



# WHY DO WE GET IT WRONG?



- We choose the vaccine in February
- Influenza virus is an RNA virus and subject to antigenic drift
  - For influenza virus to multiply, the RNA has to be duplicated by RNA polymerase
  - RNA polymerases are not very accurate
    - RNA sequence: ...AGC UAAGAA... → ...AGU UAAGAA...
    - Codons: ...AGC-UAA-GAA... → ...AGU-UAA-GAA...
    - Amino acids: ...XYZ... → ...QYZ...
  - Protein:
    - original structure
    - drifted structure
  - Immune response:
    - good → not so good
- Over time, the virus changes



# 2017-2018 INFLUENZA VACCINES



LIVE WELL  
SAN DIEGO

- Influenza A (H3N2) and Influenza B strains are unchanged
- New Influenza A (H1N1) strain A/Michigan replaces A/California based on minor changes in circulating strains
- New product licensed for infants!
  - GSK (Flulaval) licensed for children 6 months and older in November 2016

ACIP Recommendations. MMWR 2016;65:1-54/Pediatrics  
2016;138(4):DOI: 10.1542/peds.2016-2527

# 2016-2017 INFLUENZA SEASON



## US Flu VE Network: Vaccine effectiveness against influenza A/B, 2016–17

	Influenza positive		Influenza negative		Vaccine Effectiveness			
					Unadjusted		Adjusted*	
Any influenza A or B virus	N vaccinated/Total (%)		N vaccinated/Total (%)		VE %	95% CI	VE %	95% CI
<i>All ages</i>	883/2052	(43)	2761/5153	(54)	35	(27 to 41)	<b>42</b>	<b>(35 to 48)</b>
<i>Age group (yr)</i>								
6 mo–8 yr	106/353	(30)	709/1318	(54)	63	(53 to 71)	<b>61</b>	<b>(49 to 70)</b>
9–17	123/402	(31)	245/606	(40)	35	(15 to 50)	<b>35</b>	<b>(13 to 61)</b>
18–49	203/529	(38)	716/1629	(44)	21	(3 to 35)	<b>19</b>	<b>(-1 to 34)</b>
50–64	203/442	(46)	537/909	(59)	41	(26 to 53)	<b>42</b>	<b>(26 to 55)</b>
≥65	248/326	(76)	554/691	(80)	21	(-8 to 43)	<b>25</b>	<b>(-5 to 46)</b>

\* Multivariate logistic regression models adjusted for site, age, sex, race/ethnicity, self-rated general health status, days from illness onset to enrollment, and calendar time of illness onset

# VARIATION IN INFLUENZA VACCINE EFFECTIVENESS



**Table. Adjusted vaccine effectiveness estimates for influenza seasons from 2005-2017**

Influenza Season <sup>*</sup>	Reference	Study Site(s)	No. of Patients <sup>*</sup>	Adjusted Overall VE (%)	95% CI
2004-05	<a href="#">Belongia 2009</a>	WI	762	10	-36, 40
2005-06	<a href="#">Belongia 2009</a>	WI	346	21	-52, 59
2006-07	<a href="#">Belongia 2009</a>	WI	871	52	22, 70
2007-08	<a href="#">Belongia 2011</a>	WI	1914	37	22, 49
2008-09	Unpublished	WI, MI, NY, TN	6713	41	30, 50
2009-10	<a href="#">Griffin 2011</a>	WI, MI, NY, TN	6757	56	23, 75
2010-11	<a href="#">Treanor 2011</a>	WI, MI, NY, TN	4757	60	53, 66
2011-12	<a href="#">Ohmit 2014</a>	WI, MI, PA, TX, WA	4771	47	36, 56
2012-13	<a href="#">McLean 2014</a>	WI, MI, PA, TX, WA	6452	49	43, 55
2013-14	<a href="#">Gaglani 2016</a>	WI, MI, PA, TX, WA	5999	52	44, 59
2014-15	<a href="#">Zimmerman 2016</a>	WI, MI, PA, TX, WA	9311	19	10, 27
2015-16*	<a href="#">Jackson 2017</a>	WI, MI, PA, TX, WA	6879	48*	41, 55*
2016-17**	Unpublished final estimates	WI, MI, PA, TX, WA	7410	39**	32, 46

\*Estimate from Nov 2, 2015–April 15, 2016.

\*\*Interim 2016-2017 VE estimates (4/20/2016-4/9/2017) were presented to ACIP in June 2017 [743KB, 19

pages]

CDC. (2017). *Seasonal Influenza Vaccine Effectiveness, 2005-2017*. Retrieved 1/4/18 from <https://www.cdc.gov/flu/professionals/vaccination/effectiveness-studies.htm>

# INFLUENZA VACCINE EFFECTIVENESS DEPENDS ON:



LIVE WELL  
SAN DIEGO

- How you decide if someone has influenza
- What population do you study – most vaccines work less well in the very young and very old
- What do you mean by effective:
  - Prevents death
  - Prevents hospitalization
  - Prevents a visit to the doctor or emergency room
  - Prevents any symptoms

# IS THE 2017-2018 VACCINE ONLY 10% EFFECTIVE?



LIVE WELL  
SAN DIEGO

- Based on experience in Australia with one strain (H3N2)
- No official estimates yet for the U.S. vaccine effectiveness this season
- United States' effectiveness will depend on which strains circulate here
- So far, the majority of strains characterized in the United States are still similar to the vaccine strains

# 2017-2018 INFLUENZA VACCINE PRODUCTS



## Influenza Vaccine Products for the 2017–2018 Influenza Season

Manufacturer	Trade Name (vaccine abbreviation) <sup>1</sup>	How Supplied	Mercury Content (mcg Hg/0.5mL)	Age Group	Vaccine Product Billing Code <sup>2</sup>	
					CPT	Medicare
AstraZeneca	FluMist <sup>3</sup> (LAIV4)	0.2 mL (single-use nasal spray)	0	2 through 49 years	90672	90672
GlaxoSmithKline	Fluarix (IIV4)	0.5 mL (single-dose syringe)	0	3 years & older	90686	90686
ID Biomedical Corp. of Quebec, a subsidiary of GlaxoSmithKline	FluLaval (IIV4)	0.5 mL (single-dose syringe)	0	6 months & older	90686	90686
		5.0 mL (multi-dose vial)	<25	6 months & older	90688	90688
Protein Sciences Corp.	Flublok (RIV3)	0.5 mL (single-dose vial)	0	18 years & older	90673	90673
	Flublok (RIV4)	0.5 mL (single-dose syringe)	0	18 years & older	90682	90682
Sanofi Pasteur, Inc.	Fluzone (IIV4)	0.25 mL (single-dose syringe)	0	6 through 35 months	90685	90685
		0.5 mL (single-dose syringe)	0	3 years & older	90686	90686
		0.5 mL (single-dose vial)	0	3 years & older	90686	90686
		5.0 mL (multi-dose vial)	25	6 through 35 months	90687	90687
		5.0 mL (multi-dose vial)	25	3 years & older	90688	90688
	Fluzone High-Dose (IIV3-HD)	0.5 mL (single-dose syringe)	0	65 years & older	90662	90662
	Fluzone Intradermal (IIV4-ID)	0.1 mL (single-dose microinjection system)	0	18 through 64 years	90630	90630
Seqirus	Afluria (IIV3)	0.5 mL (single-dose syringe)	0	5 years & older <sup>4</sup>	90656	90656
		5.0 mL (multi-dose vial)	24.5		90658	Q2035
	Afluria (IIV4)	0.5 mL (single-dose syringe)	0	5 years & older <sup>4</sup>	90686	90686
		5.0 mL (multi-dose vial)	24.5		90688	90688
	Fluad (aIIV3)	0.5 mL (single-dose syringe)	0	65 years & older	90653	90653
	Fluvirin (IIV3)	0.5 mL (single-dose syringe)	≤1	4 years & older	90656	90656
		5.0 mL (multi-dose vial)	25		90658	Q2037
	Flucelvax (ccIIV4)	0.5 mL (single-dose syringe)	0	4 years & older	90674	90674
		5.0 mL (multi-dose vial)	25		90749/90756 <sup>5</sup>	Q2039/90756 <sup>6</sup>

- A lot of products are available
- Different types of vaccine
- Different presentations
- Different ages

### FOOTNOTES

1. IIV3/IIV4 = egg-based trivalent/quadrivalent inactivated influenza vaccine (injectable); where necessary to refer to cell culture-based vaccine, the prefix "cc" is used (e.g., ccIIV3/ccIIV4); RIV3/RIV4 = trivalent/quadrivalent recombinant hemagglutinin influenza vaccine (injectable); aIIV3 = adjuvanted trivalent inactivated influenza vaccine.
2. An administration code should always be reported in addition to the vaccine product code. Note: Third party payers may have specific policies and guidelines that might require providing additional information on their claim forms.
3. Live attenuated influenza vaccine (LAIV4; FluMist) is not recommended by CDC's Advisory Committee on Immunization Practices for use in the U.S. for the 2017–18 influenza season.
4. Afluria is approved by the Food and Drug Administration for intramuscular administration with the PharmaJet Stratis

Needle-Free Injection System for persons age 18 through 64 years.














5. CPT code 90756 was released on July 1, 2017 for implementation on January 1, 2018. Payers may implement the code based on beneficiaries' needs any time after the code's release. The CPT Editorial Panel allotted a 6-month period to allow payers adequate time to prepare their systems; however, processing periods for individual payers may accommodate a more abbreviated timeframe.
6. The Centers for Medicare & Medicaid Services (CMS) will implement vaccine code 90756 on January 1, 2018. Before January 1, 2018, claims should use the HCPCS (Healthcare Common Procedure Coding System) Q2039 when billing Medicare.



# INFLUENZA CHART – AGES



## PEDIATRIC/ADULT INFLUENZA VACCINE 2017 2018

<b>6–35 MONTHS OLD</b>	 <p><b>Fluzone® Quadrivalent</b> Sanofi Pasteur, Inc. 0.25 mL single-dose syringe</p>	<p><b>Reminders:</b></p> <p><b>DOSE</b></p> <table><tr><td>6–35 months</td><td>3+ years</td></tr><tr><td><b>Fluzone® syringes</b> (dose differs by age)</td><td><b>0.25mL</b>   <b>0.5mL</b></td></tr><tr><td><b>FluLaval® syringes</b> (same dose for all ages)</td><td><b>0.5mL</b>   <b>0.5mL</b></td></tr></table> <p>Children under 9 years of age with a history of &lt;2 doses of influenza vaccine are recommended to receive 2 doses this flu season. See <a href="http://bit.do/flu2017">bit.do/flu2017</a></p> <p>** Multi-dose vials contain preservative and typically cannot be given to children younger than 3 years of age and pregnant women per California law (Health and Safety Code 124172).</p>	6–35 months	3+ years	<b>Fluzone® syringes</b> (dose differs by age)	<b>0.25mL</b> <b>0.5mL</b>	<b>FluLaval® syringes</b> (same dose for all ages)	<b>0.5mL</b> <b>0.5mL</b>
6–35 months	3+ years							
<b>Fluzone® syringes</b> (dose differs by age)	<b>0.25mL</b> <b>0.5mL</b>							
<b>FluLaval® syringes</b> (same dose for all ages)	<b>0.5mL</b> <b>0.5mL</b>							
<b>6 MONTHS &amp; OLDER</b>	 <p><b>FluLaval® Quadrivalent</b> GlaxoSmithKline Biologicals 0.5 mL single-dose syringe</p>							
<b>36 MONTHS &amp; OLDER</b>	 <p><b>Fluzone® Quadrivalent</b> Sanofi Pasteur, Inc. 0.5 mL single-dose syringe</p>							
	 <p><b>Fluzone® Quadrivalent</b> Sanofi Pasteur, Inc. 5.0 mL** multi-dose vial</p>							
	 <p><b>Fluzone® Quadrivalent</b> Sanofi Pasteur, Inc. 0.5 mL single-dose vial</p>							
<b>4 YEARS &amp; OLDER</b>	 <p><b>Fluarix® Quadrivalent</b> GlaxoSmithKline Biologicals 0.5 mL single-dose syringe</p>							
	 <p><b>FluLaval® Quadrivalent</b> GlaxoSmithKline Biologicals 5.0 mL** multi-dose vial</p>							
	 <p><b>Fluvirin® Trivalent, Seqirus</b> 5.0 mL** multi-dose vial</p>							
<b>5 YEARS &amp; OLDER</b>	 <p><b>Fluvirin® Trivalent, Seqirus</b> 0.5 mL single-dose syringe</p>							
	 <p><b>Flucelvax® Quadrivalent, Seqirus</b> 0.5 mL single-dose syringe</p>							
	 <p><b>Afluria® Trivalent</b> Seqirus 0.5 mL single-dose syringe</p>							
<b>2–49 YEARS OLD &amp; HEALTHY</b>	 <p><b>Afluria® Trivalent</b> Seqirus 5.0 mL** multi-dose vial</p>							
	 <p><b>FluMist® Quadrivalent</b> MedImmune Vaccines, Inc. 0.2 mL single-dose nasal sprayer</p> <p><b>Not recommended by ACIP for use in 2017–18.</b></p>							

All influenza vaccines are stored in the refrigerator. Questions: Toll-free: 877-2Get-VFC (877-243-8832)

Vaccines with the VFC logo are available through the Vaccines for Children Program in 2017-2018 and can only be used for VFC eligible children (<18 years of age).

For influenza vaccines licensed only for adults, see page 2.



IMM-859 (8/17) Page 1

<b>18–64 YEARS OLD</b>	 <p><b>Fluzone® Intradermal Quadrivalent</b> Sanofi Pasteur, Inc. 0.1 mL single-dose syringe</p>	
<b>18 YEARS &amp; OLDER</b>	 <p><b>FluBlok® Trivalent</b> Protein Sciences 0.5 mL single-dose vial</p>  <p>Image not available</p> <p><b>Afluria® Quadrivalent</b> Seqirus 0.5 mL single-dose syringe</p>  <p>Image not available</p> <p><b>FluBlok® Quadrivalent</b> Protein Sciences 0.5 mL single-dose syringe</p>  <p>Image not available</p> <p><b>Afluria® Quadrivalent</b> Seqirus 5.0 mL multi-dose vial</p>	
<b>65 YEARS &amp; OLDER</b>	 <p><b>Fluzone® High-Dose Trivalent</b> Sanofi Pasteur, Inc. 0.5 mL single-dose syringe</p>  <p><b>FLUAD™ Adjuvanted Trivalent</b> Seqirus 0.5 mL single-dose syringe</p>	

All influenza vaccines are stored in the refrigerator. Questions: Toll-free: 877-2Get-VFC (877-243-8832)

\*\* Multi-dose vials contain preservative and cannot be given to children younger than 3 years of age and pregnant women per California law (Health and Safety Code 124172).

Available from California Department of  
Public Health [EZIZ.org](http://EZIZ.org)  
<http://eziz.org/assets/docs/IMM-859.pdf>

# INFLUENZA VACCINES – HOW TO KEEP THEM STRAIGHT?



LIVE WELL  
SAN DIEGO

- Is it trivalent or quadrivalent?
- Is it injectable or nasal?
- Is it made in eggs or in cell cultures?
- Is it a special product?
- What are its age restrictions?
- Who makes it/what is the brand name?

# IS IT TRIVALENT OR QUADRIVALENT?



LIVE WELL  
SAN DIEGO

- Currently, there are 7 quadrivalent IIV vaccines expected for 2017-2018
- Approximately 75% of this year's vaccine will be quadrivalent
- Some companies making IIV4 vaccines will also have their old IIV3 vaccines on the market
- Some products are only available as trivalent
- CDC expresses no preference between trivalent and quadrivalent

# IS IT MADE IN EGGS?



LIVE WELL  
SAN DIEGO

- All are made in eggs except FluBlok/Protein Sciences Corp and Flucelvax/Novartis
- Flublok is a recombinant vaccine (like Hep B vaccine) and may be referred to as RIV
- Flucelvax is a whole virus vaccine, but it is made in cells and may be referred to as cclIV

# IS IT A SPECIAL PRODUCT?



LIVE WELL  
SAN DIEGO

- IIV High dose-Fluzone High Dose/Sanofi
  - Recommended for those 65 years of age and over
  - More antigen, more local side effects
  - Slightly better effectiveness in seniors
- IIV adjuvanted-Fluad/Seqirus – NEW this year
  - Recommended for those 65 years of age and over
- IIV Intradermal-Fluzone Intradermal/Sanofi
  - Recommended for those 18-64 years of age

# WHAT HAPPENED TO LAIV?

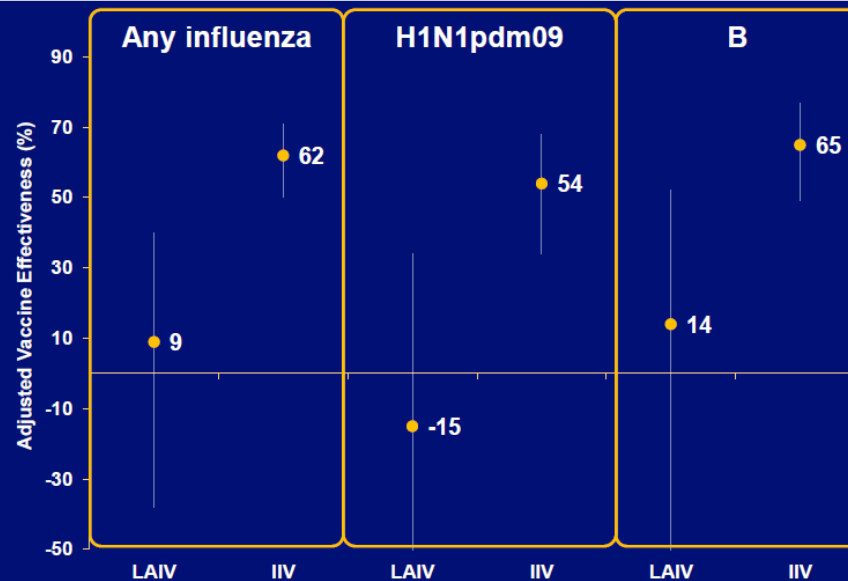


LAIV is not recommended for use this influenza season

# LAIV – POOR EFFECTIVENESS



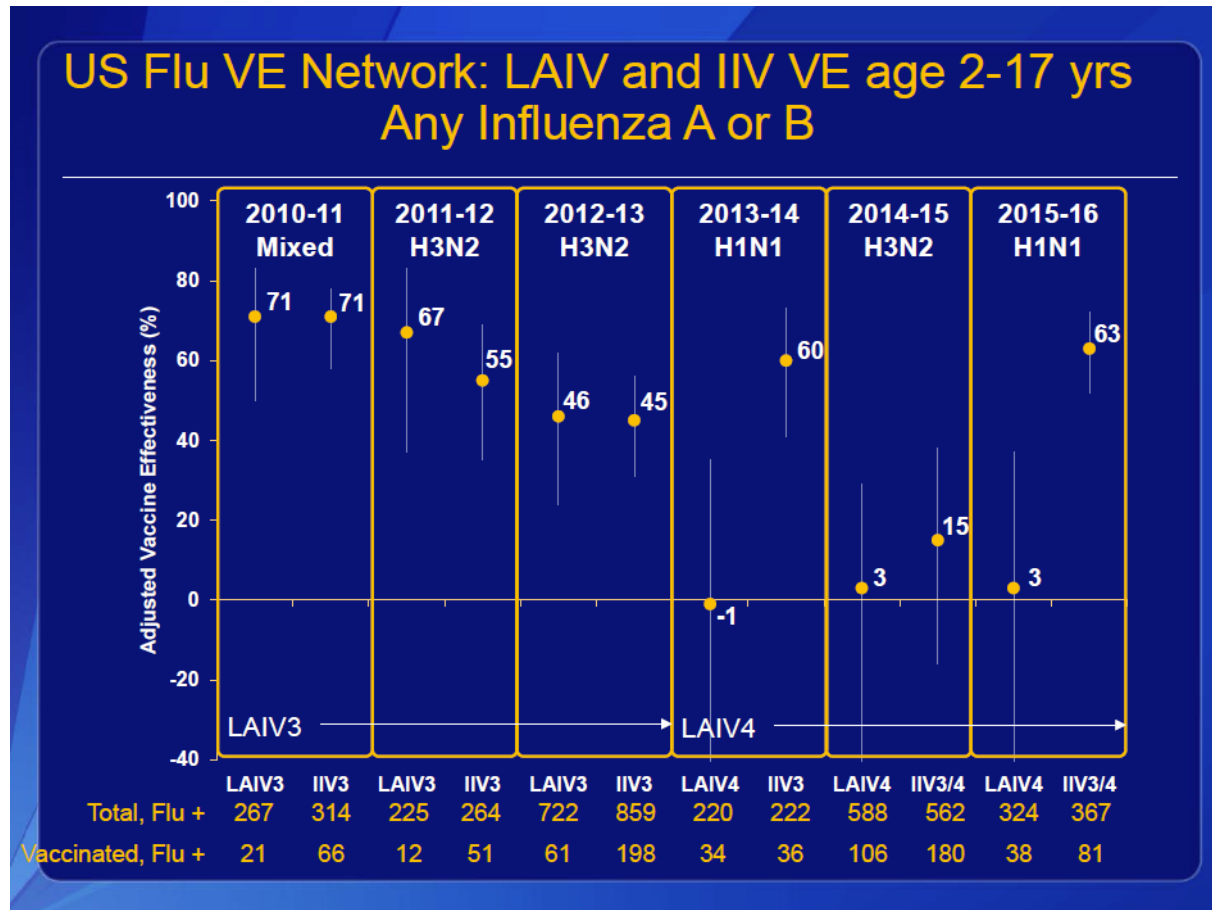
## Preliminary: LAIV and IIV vaccine effectiveness among 2-17 yrs, by influenza type/subtype, 2015-16



Total, Flu +	297	348	134	163	149	171
Vaccinated, Flu +	40	91	22	51	18	40

- CDC Influenza VE Network study
- Outpatients with cough illness <8 days
- Test-negative design
- PCR confirmed cases

# THIS WAS NOT NEW!



Low effectiveness for 3 years in a row

<https://www.cdc.gov/vaccines/acip/meetings/minutes-archive.html>

# ACIP RECOMMENDATION FOR 2017-2018



LIVE WELL  
SAN DIEGO

- The recommendation to avoid use of LAIV was originally made for the 2016–17 season
- ACIP/CDC has repeated this recommendation for 2017-2018
- This recommendation will be reevaluated as new data becomes available

# WHO SHOULD GET A FLU VACCINE?



Everyone 6 months of age and older!



# WHO IS *NOT* GETTING A FLU VACCINE?



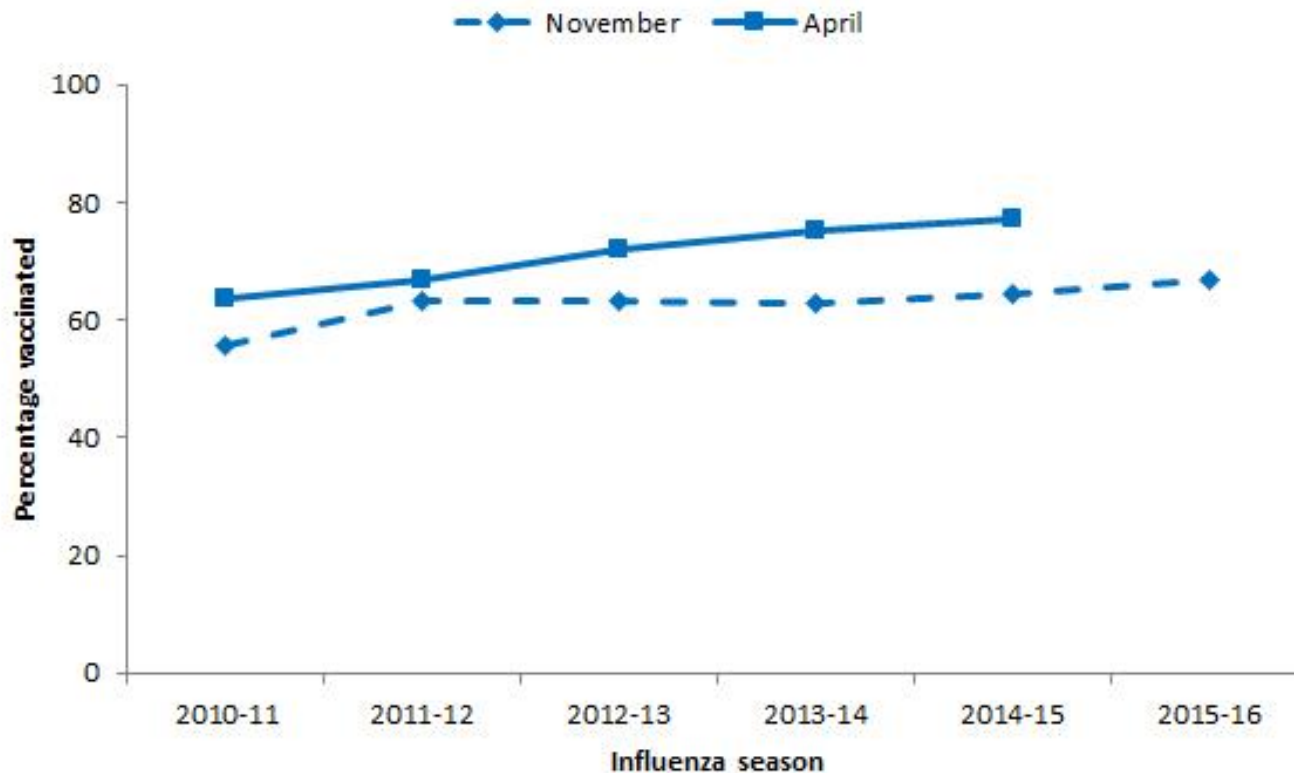
Group	2015-2016 Unvaccinated
Seniors	37%
Adults $\geq 18$ years	58%
Adults, 18-64 years, high risk	54%
Pregnant women	50% overall 33% if offered 80% if not offered
Children	41%

[www.cdc.gov/flu](http://www.cdc.gov/flu)  
<http://www.cdc.gov/flu/weekly/>

# HEALTHCARE WORKER INFLUENZA VACCINATION



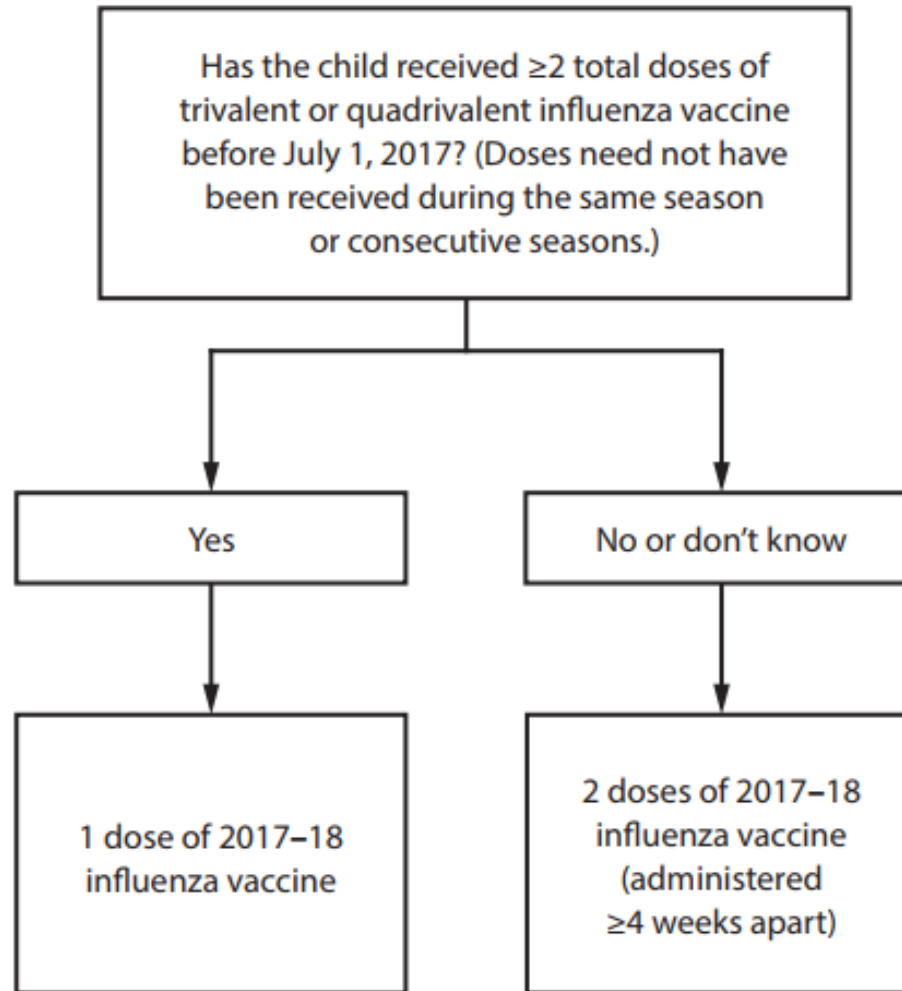
**Flu vaccination coverage among health care personnel by November and April, for 2010-11, 2011-12, 2012-13, 2013-14, and 2014-15 flu seasons, and November for 2015-16 flu season, Internet panel survey, United States**



# TWO DOSES OF INFLUENZA VACCINE FOR YOUNG CHILDREN – UPDATE



Influenza vaccine for  
children aged  
6 months through 8 years,  
2017–18 influenza season



# VACCINES DURING PREGNANCY RATIONALE



LIVE WELL  
SAN DIEGO

- Routine protection of adult women
- Special protection because of increased risk of disease during pregnancy (e.g., influenza)
- Protection of infants immediately after birth through passive transfer of antibody (e.g. pertussis)
- Protection of infants by prevention of transmission of disease from mother to baby

# CHANGES IN PREGNANCY THAT INCREASE RISK OF INFECTION



Gestation	Risk of Hospitalization
1st trimester	7.6/10,000
2nd trimester	15.8/10,000
3rd trimester	26.2/10,000

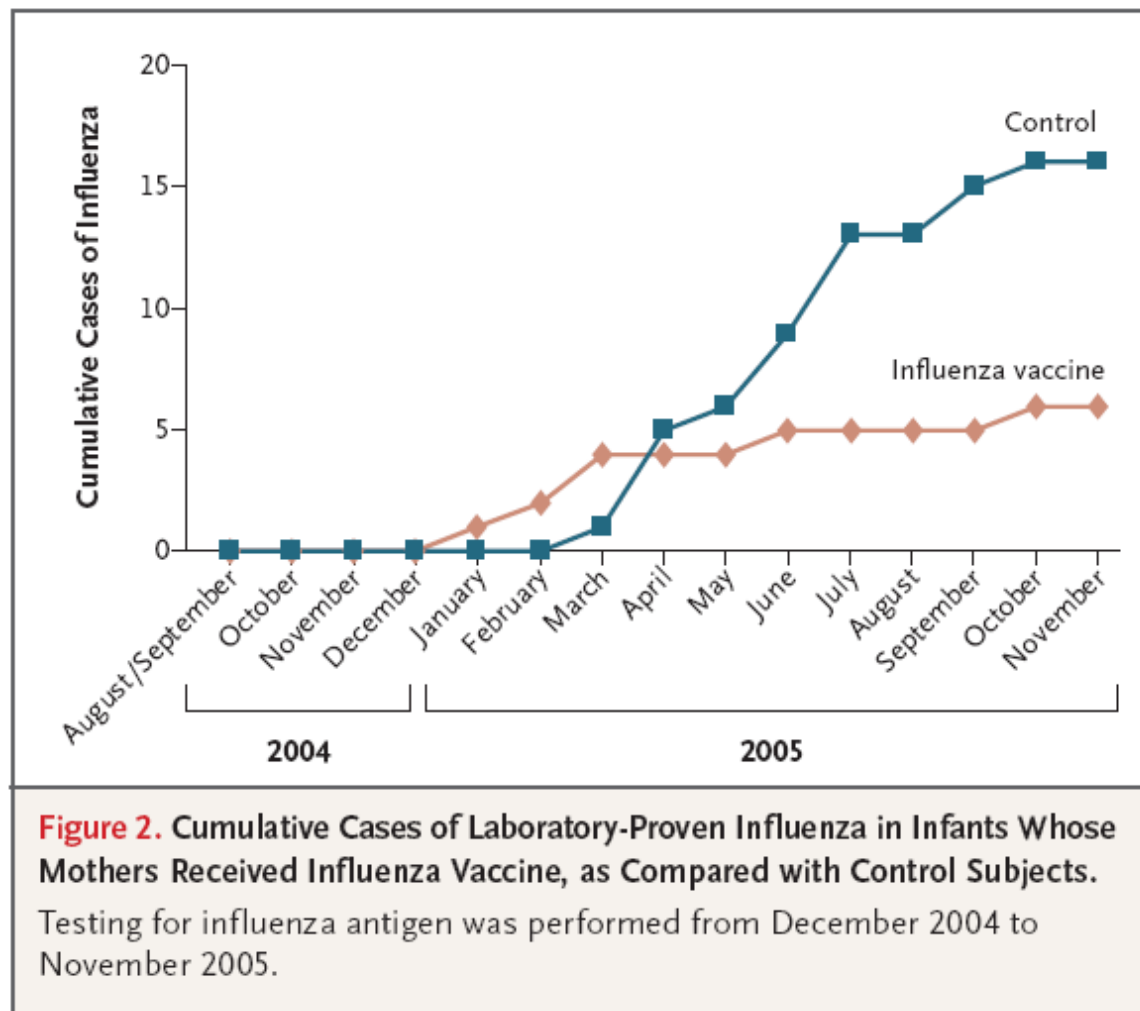
- Modulated immune response
- Expanded vascular volume
- Decreased lung capacity
- Increased oxygen consumption

Neuzil, K. M., Reed, G. W., Mitchel, E. F., Simonsen L., & Griffin, M. R. (1998). Impact of influenza on acute cardiopulmonary hospitalizations in pregnant women. *American Journal of Epidemiology*, 148, 1094-1102

# IMMUNIZATION OF PREGNANT WOMEN PROTECTS THEIR BABIES



- 316 mother-infant pairs in Bangladesh in 2004-2005
- Mothers immunized randomly with influenza vaccine or pneumococcal vaccine
- 63% vaccine effectiveness in preventing lab-confirmed influenza in babies
- 36% reduction in febrile respiratory in mothers



Zaman, K., Roy, E., Arifeen, S. E., et al. (2008). Effectiveness of maternal influenza immunization in mothers and infants. *The New England Journal of Medicine*, 359, 1555-1564. doi:10.1056/NEJMoa0708630



LIVE WELL  
SAN DIEGO



Contents lists available at [ScienceDirect](http://www.sciencedirect.com)

## Vaccine

journal homepage: [www.elsevier.com/locate/vaccine](http://www.elsevier.com/locate/vaccine)



### Association of spontaneous abortion with receipt of inactivated influenza vaccine containing H1N1pdm09 in 2010–11 and 2011–12



James G. Donahue<sup>a,\*</sup>, Burney A. Kieke<sup>a</sup>, Jennifer P. King<sup>a</sup>, Frank DeStefano<sup>b</sup>, Maria A. Mascola<sup>c</sup>,  
Stephanie A. Irving<sup>d</sup>, T. Craig Cheetham<sup>e</sup>, Jason M. Glanz<sup>f</sup>, Lisa A. Jackson<sup>g</sup>, Nicola P. Klein<sup>h</sup>,  
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#### Commentary

### Commentary on: “Association of spontaneous abortion with receipt of inactivated influenza vaccine containing H1N1pdm09 in 2010–11 and 2011–12” ☆



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“The current findings cannot be considered causal, and could be due to chance. Nevertheless, it is important to consider these in the context of previous work, which taken as a whole does not support any change in the ACIP recommendations to vaccinate against influenza during pregnancy. In the meantime, it is important to search for opportunities to ask the same research question in other datasets.”

# INFLUENZA VACCINE AND EGG ALLERGY – STOP WORRYING!



LIVE WELL  
SAN DIEGO

- Current manufacturing techniques have lowered the amount of ovalbumin contained in influenza vaccines to an amount that does not trigger allergic reactions
- Review of published data on 4,172 egg-allergic patients: No cases of anaphylaxis after IIV
- Anaphylaxis to influenza vaccine in egg-allergic patients is no more common than anaphylaxis to any other vaccine
- Any influenza vaccine product can be given to egg-allergic individuals, including those who have had anaphylaxis to egg; you should be just as prepared to treat an anaphylactic reaction to influenza vaccine as you are for any other vaccine
- 30-minute waiting period dropped to 15 minutes



# SUMMARY



LIVE WELL  
SAN DIEGO

- Influenza season has started early this year
- Circulating strains of influenza are always changing
- We do not yet know how effective this year's vaccine is, but vaccination is the most important thing people can do to avoid influenza
- There is a new FDA-approved influenza vaccine product this year for 6-month-old children
- Large portions of our population do not get influenza vaccine every year; we need to keep working to improve coverage rates
- Influenza vaccine continues to be recommended routinely during pregnancy to protect the mother and the baby
- It is safe to give influenza vaccine to egg-allergic people

# WHERE TO GO FOR MORE INFORMATION



LIVE WELL  
SAN DIEGO

- Your local health department  
(San Diego HHSA Immunization Branch [[SDIZ.org](http://SDIZ.org)])
- Your state health department  
(California Department of Public Health [[www.cdph.ca.gov](http://www.cdph.ca.gov)])
- CDC  
([cdc.gov/vaccines](http://cdc.gov/vaccines))

# Questions & Answers

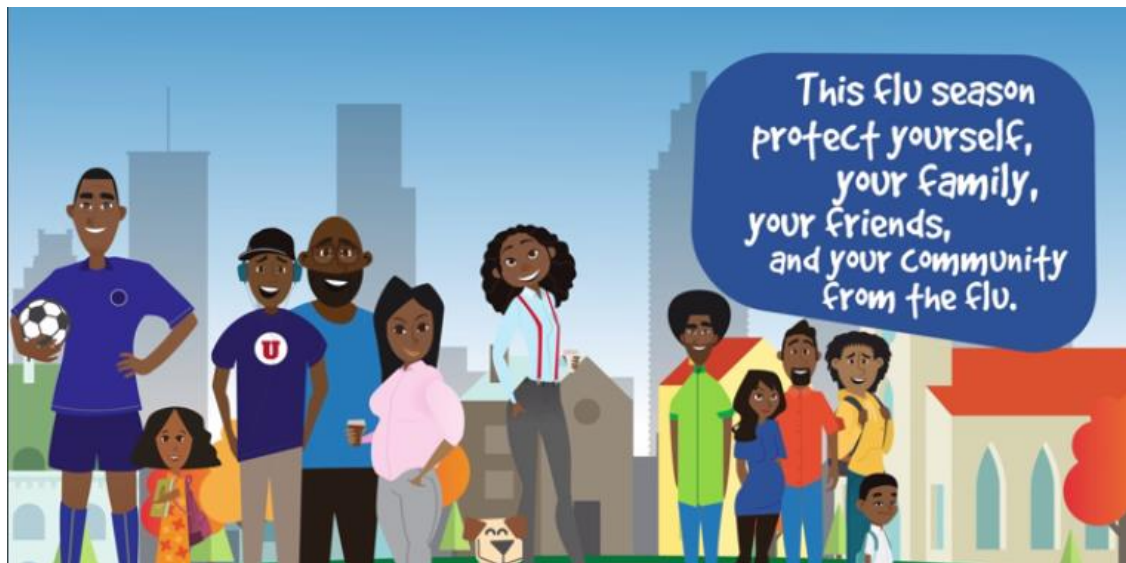
Type your question into the Q&A box



National Influenza Vaccination Disparities Partnership  
WEBINAR



THANK YOU!



National Influenza Vaccination Disparities Partnership  
WEBINAR

